

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, JUNE, 1928

By J. B. KINCER

General summary.—During the first decade of June there was a continuation of wet, cloudy weather over the eastern two-thirds of the country and the temperatures remained rather unseasonably low. Cultivation was impracticable in much of the Atlantic coast section, with many row crops getting weedy; the South had more favorable weather, although cultivation was still retarded. There were generous, timely rains over the Northwest, especially in the northern Great Plains, where severe drought had prevailed and, at the close of this period, the soil was generally well supplied with moisture east of the Rocky Mountains. In the central Rockies unusually favorable conditions continued, but west of the mountains rainfall was deficient, although temperatures were mostly favorable.

During the second decade there were further beneficial rains in central-northern States, with most crops showing marked improvement. The moderate temperatures, with light rains in many parts, in the Middle and South Atlantic States were beneficial and crops made satisfactory progress quite generally in those sections, but over a large area of the central valleys frequent showers and wet soil hindered field work and many complaints were received of grassy fields and needed cultivation of row crops. Satisfactory progress was made in the central Rocky Mountain area, but to the westward dry weather continued rather generally with some deterioration of staple crops.

During the last decade continued rains in the interior valleys and Northeast were unfavorable for cultivation and warm, sunny weather was needed generally throughout the central and northern portions of the country. The comparatively high temperatures and considerable fair weather were favorable in the Atlantic coast section from Virginia southward. Considerable hail damage was reported from sections of the interior, but small grains were favored in central-northern States. West of the Rocky Mountains rain was still needed, but conditions were mostly favorable for irrigated crops.

Small grains.—Winter wheat made rather slow advance during the first decade due to cool weather, but conditions were mostly favorable in the West with the crop ripening as far north as Oklahoma, while in the drier sections of the Ohio Valley there were complaints of plants heading short. During the second decade the harvest of winter wheat was begun as far north as Kansas and the crop was ripe in Oklahoma, while in the northern part of the belt conditions were generally satisfactory. Harvest advanced during the last decade north to central Maryland in the East and generally over the eastern third of Kansas, but progress was slow due to the rainy weather. In the northern parts of the belt continued cool weather and ample moisture were favorable for filling.

Spring wheat deteriorated during the first decade due to the unusually dry weather over most of the belt, but at the close of the period there were beneficial rains. It continued too dry in the Pacific Northwest, with some deterioration noted. During the second decade there was marked improvement, due to the rains of the previous period, but in some sections of South Dakota the rains came late, with thin stands and plants heading short. The weather was unusually favorable during the last decade, although in the southern and eastern portions of the belt the crop was reported as headed on short straw and stands thin in many places. Persistent dryness in

the far Northwest caused further deterioration in some places.

Corn.—In the principal producing areas corn grew rather slowly during the first decade, with cultivation backward in the Ohio Valley, although the crop was generally clean in most western parts of the belt. Good growth was reported in the Great Plains area, but in the South fair weather was needed for cultivation. During the second decade continued cool weather caused corn to make poor to only fair progress, with many complaints of weediness in the eastern part of the belt. Cultivation was well along in western sections, but in the South fields continued mostly very grassy. Some improvement was noted in the East and rains were beneficial in the Lake region. Warmth and dryness were rather badly needed in the Ohio Valley during the last decade, with some yellowing reported. Condition and progress in Iowa were very good to excellent and in the Great Plains fair to excellent advance was made, but in the South the crop was still weedy, with some still being planted on lowlands. Corn was backward in most northern sections from the Great Lakes westward, with warmth and sunshine badly needed.

Cotton.—During the first decade warm, sunny weather was needed in the Carolinas for best development of the cotton crop, while in Georgia it was too cloudy and wet the first part, although some improvement occurred toward the close. In the central part of the belt progress was poor to only fair, while in Arkansas conditions were favorable, except for some detrimental rains. In Louisiana progress was only fair, but in Oklahoma growth was fair to good and, while the crop was late, stands averaged good and chopping was well advanced. In Texas growth was good, with warmth and showers helpful, and squares were forming freely to the extreme northeastern part of the State.

During the second decade temperatures were generally seasonable, but there was too much rain in many sections, especially in the northern portions of the east Gulf States. In the Atlantic coast area rains were light to moderate, with progress fair to good, while in the central part of the belt rainfall interfered with cultivation and advance was mostly poor to only fair. Corn was rather favorable in Arkansas, but in Oklahoma there was too much rain and progress of cotton was generally rather poor, although chopping was nearly completed. In Texas the weather was more favorable and growth was good to very good, with squares forming rapidly in the northeast and plants blooming freely in central and southern portions.

During the last decade the warmth in the Carolinas promoted good growth, while in Georgia, Alabama, and Mississippi generally fair weather the first part favored the crop. In Tennessee it was too cool and rainy, but in Arkansas growth was mostly very good, and in Oklahoma fair to good, except that much of the crop was weedy. The temperature averaged above normal in Texas and rainfall was of a local character, but high winds were detrimental; plants were small and uneven, but cultivation was mostly good.

Miscellaneous crops.—Pastures made mostly fair to excellent advance in most sections of the East during the month and the widespread and timely rains in northern parts during the first part were of great benefit; the range was generally favored in the Rocky Mountain areas, although cool weather was detrimental for a little while. Rainfall was needed rather generally west of the Mountains with complaints of dryness and some browning in

the Southwest. There was some delay to haying, particularly in central-northern parts, but in more western sections there was practically no interruption. Livestock continued in generally good condition in all sections.

Potatoes made mostly good advance throughout the month, except for some complaints of wet soil in the Ohio Valley and Lake region. Truck crops made good progress generally, although there was some slow growth due

to cool weather in northern parts. Rains interfered with tobacco transplanting in central parts, but in other sections there was satisfactory progress. Sugar cane and sugar beets made good advance, although it was too cool for best growth of beets in Wyoming at the close. Citrus and deciduous fruits were generally satisfactory during the month.

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

June, next to July, is normally the quietest month of the year over the North Atlantic, and, taking the ocean as a whole, the current month was no exception to the general rule. The weather conditions differed greatly, however, in different localities, as over the middle and eastern sections of the steamer lanes gales were reported on from 1 to 3 days, while at the time of writing no reports have been received showing a wind force of 8 or over west of the fifty-fifth meridian, with the exception of a disturbance on the 30th between Hatteras and New York.

The North Atlantic high and Icelandic Low were both comparatively inactive during the greater part of the month, and at times unusually low pressure in the vicinity of the Azores was responsible for unfavorable weather in that region.

Charts VIII to XI show the conditions from the 15th to 18th, inclusive, during the flight of the airplane *Friendship* with Stultz, pilot, Gordon, mechanic, and Miss Earhart on board, and also the two days previous to the flight, which began on the 17th and ended on the 18th.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, June, 1928

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Julianaab, Greenland.....	30.01	(?)	30.28	14th....	29.76	27th.
Belle Isle, Newfoundland.....	29.83	-0.01	30.12	21st....	29.34	11th.
Halifax, Nova Scotia.....	29.94	+0.01	30.20	29th....	29.58	1st.
Nantucket.....	29.92	-0.07	30.14	11th *.	29.64	2d.
Hatteras.....	29.97	-0.04	30.12	12th *.	29.78	7th.
Key West.....	29.99	-0.01	30.06	14th....	29.88	16th.
New Orleans.....	29.96	+0.01	30.08	15th....	29.76	3d. ³
Cape Gracias, Honduras.....	29.86	-0.01	29.90	30th....	29.82	3d. ³
Turks Island.....	30.05	-0.04	30.12	2d. ³	29.98	30th.
Bermuda.....	30.15	+0.05	30.32	4th....	29.98	17th.
Horta, Azores.....	30.05	-0.16	30.36	14th....	29.60	7th.
Lerwick, Shetland Islands.....	29.75	-0.05	30.35	1st....	29.21	10th.
Valencia, Ireland.....	29.88	-0.12	30.36	15th....	28.88	9th.
London.....	29.94	+0.01	30.29	2d....	29.40	9th.

¹ From normals shown on Hydrographic Office Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m. seventy-fifth meridian.

² No normal available.

³ And on other date or dates.

Fog was unusually prevalent over the Grand Banks and along the American coast north of the thirty-fifth parallel, being reported on from 19 to 23 days in these localities. Fog was also observed on from 3 to 6 days over the middle and eastern section of the steamer lanes and on 1 day off the west coast of Florida.

On the 2d a moderate depression was central near 40° N., 15° W.; this moved slowly northeastward and on the 10th and 11th was over the North Sea. On the 2d and

3d moderate gales prevailed over a limited area between the Madeiras and fortieth parallel, and on the 9th between the Irish coast and tenth meridian. On the 7th and 8th moderate gales were also reported by vessels between the Azores and fortieth meridian.

On the 11th a shallow depression was central near 47° N., 30° W.; and on the 12th and 13th moderate weather with slight pressure gradients prevailed generally. On the 14th two disturbances of no great force were over the ocean; the first central near 43° N., 45° W., and the second over the English Channel, while moderate gales occurred near the centers of both.

By the 15th, as shown on Chart VIII, the western low had moved but little, but the storm area on that day was by far the most extensive of the month, reaching from the thirtieth to fifty-fifth meridians and thirty-fifth to forty-fifth parallels, with a region of comparatively moderate winds between the thirty-fifth and forty-fifth meridians.

As shown on Charts X and XI, moderate weather prevailed generally on the 17th and 18th, the conditions on the 19th being similar.

On the 20th a low was central near 50° N., 35° W., accompanied by moderate westerly gales; this moved eastward and on the 23d was off the east coast of Scotland. On the 21st strong westerly gales were encountered near 50° N., 25° W., and on the 22d northerly winds of equal force occurred near 58° N., 19° W.

Capt. E. Richter, of the German S. S. *Concho* (ex-American), from Baltimore to Danzig, reports that on June 23, in 46° 39' N., 29° 33' W., he met an unusually heavy storm from the east by south. It began at noon, with continuous heavy rain. The wind held in the same direction until 2 a. m. on the 24th. The rain stopped at 11 p. m. on the 23d and the wind suddenly shifted to south-southwest, force 6. At 3 a. m. a few bright stripes were seen in the northwest, when a thick fog came up. After an hour it suddenly cleared and the wind blew very hard from the northwest. The lowest barometer, 29.38 inches (uncorrected), occurred at 2 a. m. on the 24th.

On the 24th and 25th a disturbance was again over the eastern section of the steamer lanes, the storm area extending from the fifteenth to thirtieth meridians on the former date, and from the Irish coast to the twentieth meridian on the latter. On the 26th a number of land stations on the coast of Great Britain reported northerly to westerly winds of force 7 and 8.

From the 27th until the end of the month moderate conditions were the rule, although on the 27th and 28th a few vessels in the eastern section of the steamer lanes reported moderate southerly gales, and on the 30th the only disturbance of the month in American waters occurred off the coast between Hatteras and New York, as shown by storm report in table from Am. S. S. *Gulfking*.